



2007 CENSUS OF AGRICULTURE

2009 Michigan On-Farm Energy Production

An average small wind turbine costs \$9,981 to install in Michigan.

Solar panels on Michigan farms had an average generating capacity of 841 watts.

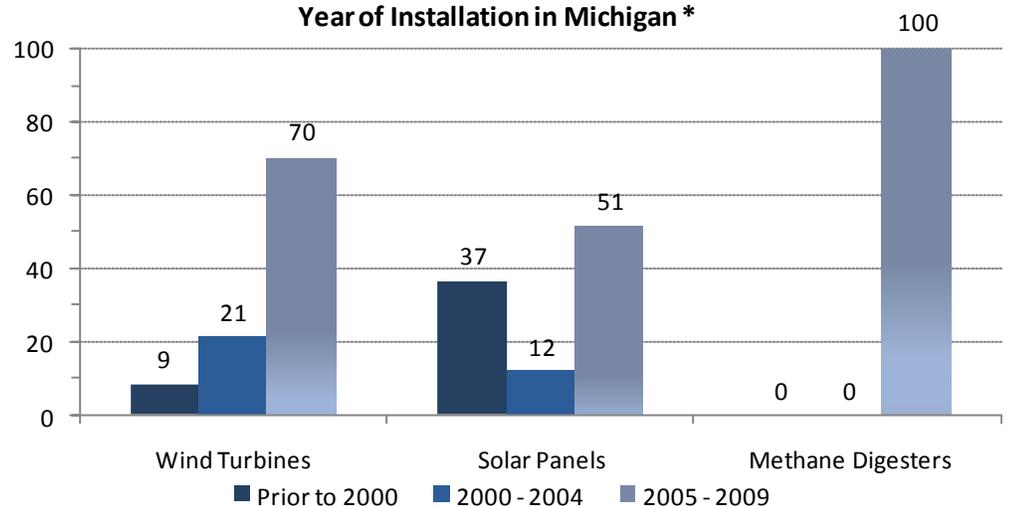
In 2009, the average methane digester produced 36,923,333 cubic feet of methane.

The 2009 On-Farm Renewable Energy Production Survey was the first nationwide survey that looked at renewable energy practices on American farms and ranches. This survey focused on three principal renewable energy systems: solar panels, wind turbines and methane digesters.

According to the survey results, solar panels were the most common way to produce on-farm energy in Michigan. In 2009 farmers on 53 operations in Michigan reported using photovoltaic solar panels, and 27 operations reported using thermal solar panels. The use of 47 small wind turbines (<100 kW) was reported by farmers on 34 operations. The use of methane digesters was reported by five operations in Michigan. Michigan farmers whose operations produced on-farm energy saved an average of \$529 on their utility bills in 2009.

Renewable Energy Type	Farms	Number	Installation Cost per Unit	Percent of installation cost funded by outside sources
Small Wind Turbines	34	47	\$9,981	(D)
Methane Digesters	5	10	\$1,322,222	(D)
Solar Panels	75	(NA)	\$7,416	30

Percent of Wind Turbines, Solar Panels and Methane Digesters by Year of Installation in Michigan *



* Only includes operations reporting year installed.



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The top states in terms of number of operations producing on-farm renewable energy:

1. California
2. Texas
3. Hawaii
4. Colorado
5. Oregon

For More Information

Access the complete results of the 2009 On-Farm Energy Production Survey online. Results include detailed national and state level data.

www.nass.usda.gov

www.agcensus.usda.gov

Agricultural Statistics Hotline
(800) 727-9540

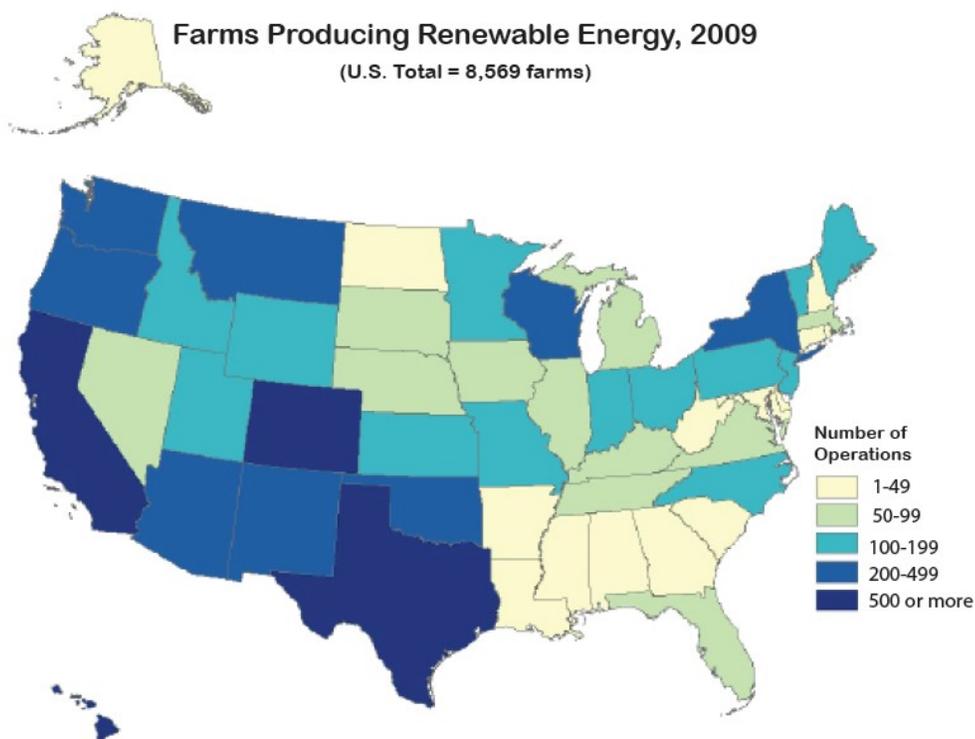
U.S. Department
of Agriculture

National Agricultural
Statistics Service



Producers on 8,569 farms in the United States reported producing renewable energy on their operations in 2009. Farmers whose operations produced on-farm energy saved an average of \$2,406 on their utility bills in 2009.

The majority of the farms that reported generating energy on the farm in 2009 were located in the western and northern parts of the United States. With almost 2,000 farms, or over 20 percent of the U.S. total, California had the largest number of operations producing on-farm renewable energy. Texas, Hawaii, and Colorado were the only other states in which more than 500 farms reported generating energy on the farm.



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